Natural Environment Study

County of Orange, California

Caltrans District 12

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STATE OF CALIFORNIA
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1. Summary

This Project proposes to widen the existing Antonio Parkway and La Pata Avenue in unicorporated southern Orange County for an approximate 1.4-mile segment extending from south of Ladera Ranch to south of State Route 74 (SR-74). The project would result in total impacts to 61.6 acres, including 42.7 acres of permanent impacts resulting from grading and 18.9 acres of temporary impacts related to remedial grading and bridge expansion. Of the 61.6 acres of impact, 26.9 acres are natural vegetation communities and 34.7 acres are non-natural, manmade landcovers. Two animal species of concern – northern red-diamond rattlesnake (*Crotalus ruber ruber*) and yellow-breasted chat (*Icteria virens*) – were observed within or immediately adjacent to the impact area, respectively. No other plant or animal species of concern have been observed in the impact area, but several special-status wildlife species have potential to occur in the Project area based on the presence of suitable habitat and their known proximity to the site.

Impacts to biological resources within the Project area, including species and habitats of concern, were previously analyzed in the Draft Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan (Southern Subregion NCCP/MSAA/HCP) and associated Draft Joint Programmatic Environmental Impact Report/Environmental Impact Statement (EIR/EIS) that were published for public review July 2006. The U.S. Fish and Wildlife Service (USFWS) issued a federal Endangered Species Act (FESA) Section 10(a)(1)(B) Incidental Take Permit (ITP) for federally-listed species in January 2007 for the HCP component of the Draft Southern Subregion NCCP/MSAA/HCP, referred to hereafter as the Southern Subregion HCP (SSHCP).[1] Biological impacts related to the existing Antonio Parkway were also analyzed in association with Ladera Ranch Entitlements and initial construction of Antonio Parkway. Mitigation for impacts in the Project area, as well as other planned development activities and infrastructure in the SSHCP area, is primarily preservation, monitoring, and management of an approximately 32,000-acre Habitat Reserve. Additional project-specific mitigation is also provided through a Biological Resources Construction Plan (BRCP) designed to avoide and minimize impacts during construction, as described in Section 6, Mitigation Measures.

The proposed Project, as designed and described herein, includes some minor modifications of the project footprint that was conceptually analyzed in the Draft Southern Subregion NCCP/MSAA/HCP and Draft Joint Programmatic EIR/EIS. This Natural Environment Study

[1] The distinction between the Draft Southern Subregion NCCP/MSAA/HCP and the SSHCP is important. The SSHCP, as the federal component of the NCCP/MSAA/HCP, is the federally-approved Habitat Conservation Plan for which the Section 10(a)(1)(B) ITP was issued. The Project impacts reported in this NES are based on the analysis reported in the Draft Southern Subregion NCCP/MSAA/HCP and which were incorporated in the SSHCP. Therefore all impacts authorized by the SSHCP ITP are the same as those reported in the Draft Southern Subregion NCCP/MSAA/HCP and these documents are functionally the same for this purpose.

demonstrates that the proposed Project is consistent with, and thus has been adequately analyzed, in the Draft Southern Subregion NCCP/MSAA/HCP and Draft Joint Programmatic EIR/EIS, as well as previous environmental analyses, as discussed in detail below. Therefore, the mitigation measures included in the Draft NCCP/MSAA/HCP, SSHCP, and Draft Joint Programmatic EIR/EIS adequately mitigate for impacts resulting from the proposed Project.

2. Introduction

Project Location

The proposed Antonio Parkway (Project) footprint is located within the existing right-of-way for an approximately 1.4-mile segment within unincorporated Orange County, California (*Figures 1* and *2*). The Project limits begin at approximately 2,000 feet south of the intersection at Covenant Hills Drive (the southern boundary of the Ladera Ranch Planned Community) and extend approximately 7,900 feet (1.4 miles) south. This would extend the improvements approximately 900 feet south of the intersection with State Route 74 (SR-74), which is known locally as Ortega Highway (*Figure 2*). Extending the improvements through the intersection is required to facilitate traffic operations and to provide for a safe transition to the existing lane configuration on La Pata Avenue. The improvements would utilize the existing roadway centerline, profile, and standard super-elevation. The Project footprint is located on the Cañada Gobernadora U.S. Geological Survey (USGS) 7.5 minute quadrangle map in Section 33, Township 7S, and Range 7W. The northern terminus is located at latitude −117.624067 and longitude 33.534685. The southern terminus is located at latitude −117.62012 and longitude 33.51734.

Project Description and Project Purpose

A Project Report has been prepared and approved in December 2008 by the County of Orange for the proposed project. The Project Report includes the following elements: Geometric Approval Drawings, Hydrology and Hydraulics Report, Water Quality Management Plan Roadway BMP Plan, Geotechnical Overview, Bridge Widening Type Selection Report, and environmental documents/permits.

Roadway Geometrics

The typical proposed roadway width would be 102 feet between curbs and a total of 120 feet of roadway right-of-way. This widening would allow for 3 lanes of traffic in each direction (13-foot, 12-foot, and 11-foot lanes) and a 14-foot-wide raised median. Additionally, 8-foot-wide bikeway/shoulders and a 6-foot-wide curb-adjacent or 5-foot-wide meandering sidewalks would

be provided on both sides of the street. Parkways would vary between 11 and 25 feet in width.

A new 40.25-foot-wide bridge would be constructed over San Juan Creek. The new bridge, combined and joined with the existing bridge, would provide sufficient width to allow for 3 southbound lanes, 1 southbound left-turn lane, a 4-foot-wide raised median, and 3 northbound lanes. There would be 8-foot shoulders and 5-foot sidewalks on both sides of the roadway. The design would be a cast-in-place, pre-stressed, continuous concrete box girder that would match the existing bridge superstructure. The proposed bridge span configuration would match the existing bridge spans and would be a total of 776 feet long.

At several locations, the cross-section for Antonio Parkway would be widened to accommodate turning lanes. These locations reflect approved land use plans. Turn lanes would be provided at the following locations:

- A left-turn lane and two right-turn lanes would be provided immediately north of SR-74 in the southbound direction.

- A northbound right-turn lane and southbound left-turn lane would be provided at "D" Street. This future roadway would be located south of the San Juan Creek Bridge and would provide access to a future commercial retail site for Tentative Tract No. 17054 on the northeastern corner of the SR-74/Antonio Parkway intersection. The raised median opening on Antonio Parkway at this location would be designed to allow only southbound left-turn movements. Westbound left turns out of the parcel would be prohibited.

- Two southbound left-turn lanes and a northbound right-turn lane would be provided at the future Cow Camp Road intersection.

- North of Cow Camp Road, the Antonio Parkway intersection at the future "C" Street would have two through lanes with a single shared through and right-turn lane in both the northbound and southbound directions. Left-turn lanes would be provided for both the northbound and southbound directions.

South of SR-74, Antonio Parkway becomes La Pata Avenue. Improvements are currently under construction on SR-74 and affect the Antonio Parkway/La Pata Avenue/SR-74 intersection. As part of the Antonio Parkway Widening Project, no modifications to SR-74 would be necessary because the design for SR-74 has incorporated the ultimate cross-section for Antonio Parkway/La Pata Avenue. The Antonio Parkway cross-section immediately north of SR-74 would consist of:

- 6 southbound lanes (1 left-turn lane, 3 through lanes, and 2 right-turn lanes);
- A 24-foot-wide median;
- 3 northbound lanes;
- An 8-foot-wide shoulder on the northbound side, including provision for a bike lane;
- A 5-foot shoulder on the southbound side including provision for a bike lane;
- A proposed 25-foot-wide parkway for the northbound side; and
- A 15-foot-wide parkway on the southbound side.

As previously indicated, the Project would involve improvements to approximately 900 feet of La Pata Avenue to provide transition from the six-lane Antonio Parkway improvements to the existing configuration for La Pata Avenue. La Pata Avenue is designated as a Primary Arterial Highway. The standard Primary Arterial curb-to-curb width is 84 feet, with a total of a 100-foot-wide right-of-way. The improvements to La Pata Avenue would utilize the existing centerline. To provide for this transition and meet the operational requirements, La Pata Avenue immediately south of SR-74 would have three southbound lanes with a four-foot-wide median, two northbound left-turn lanes, three northbound through lanes, and a right-turn lane. This Project would match the existing La Pata Avenue profile and super-elevation rates.

Because turn lanes are proposed, which is beyond what was analyzed as part of the original Project design in 1998, additional right-of-way would be required to implement the proposed project. The additional right-of-way would affect six parcels. The total area would be approximately 2.04 acres. The required right-of-way would be dedicated to the County by Rancho Mission Viejo.

Signal Improvements and Lighting

No signal modifications, other than timing adjustments, would be required at the Antonio Parkway/SR-74/La Pata Avenue intersection because the ultimate signal requirements and placement will have been installed in conjunction with the ongoing SR-74 project. The signal improvements would ultimately be installed at the following intersections: Antonio Parkway/Cow Camp Road and at Antonio Parkway/“C” Street. However, the improvements would be phased with the adjacent development. Street lighting would be consistent with the County of Orange requirements for safety lighting.

Design Exceptions

Not all proposed sidewalks and handicap ramps on Antonio Parkway would meet Americans with Disabilities Act (ADA) requirements. Preliminary findings show that the cross slope through the crosswalks on Antonio Parkway and at its intersections with Cow Camp Road and “C” Street may exceed the ADA slope. This deviation from the standard is due to the existing

profile grade (six percent) along Antonio Parkway. The sidewalk along Antonio Parkway north of San Juan Creek would also follow the roadway grade and would therefore exceed ADA requirements for slope.

All proposed sidewalks and handicap ramps on La Pata Avenue would be ADA compliant except the crosswalks across the private street located approximately 600 feet south of SR-74 along the eastern side of La Pata Avenue, which would exceed the ADA standards for crosswalk cross slope due to the existing super-elevation (5.4 percent) along La Pata Avenue.

Drainage and Water Quality

Drainage improvements would be provided. However, the tributary area to the existing storm drain would not change due to Project improvements. The flow-by catch basins were sized based on preliminary 10-year peak flow rate estimates, and all sump catch basins were sized for a 25-year peak flow rates. The flows on the western side of the roadway would be redistributed as ditches, and inlets would be replaced by gutters and catch basins.

Runoff from the new impervious area of Antonio Parkway from the Ladera Ranch Planned Community boundary south to the northern terminus of the San Juan Creek Bridge would be treated by cartridge media filtration (or an equivalent proprietary Best Management Practice [BMP]). The cartridge media filtration system would be sized to treat the runoff flow rate produced by one of the following:

- A maximum of twice the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall records;
- the maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour for each hour of a storm event; or
- the maximum flow rate of runoff (as determined from the local historical rainfall record) that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

The cartridges would be located in a centralized vault near the existing outlet next to San Juan Creek.

The runoff from the new Antonio Parkway bridge, Antonio Parkway south of the bridge to SR-74, and the small area of La Pata Avenue south of SR-74 would be treated in the proposed water quality basin that would be constructed in the northeastern corner of the Antonio Parkway and Ortega Highway intersection.

The existing San Juan Creek Bridge drains through deck inlets for direct discharge to San Juan Creek. Retrofitting the existing bridge deck with a storm drain system is not required with current water quality standards. Structural treatment control BMPs for runoff from the existing bridge has been determined to be infeasible since it would otherwise necessitate removal of the existing bridge deck and compromising the structure to install drain pipes and inlets. Under the County's Drainage Area Management Plan retrofitting of the existing bridge is not required because the percentage increase in impervious surface is less than 50 percent of the amount of existing impervious area. Therefore, the County would not be required to treat runoff from the existing portion of the bridge.

Provisions for Future Bikeway

Bikeways and trails are provided as part of the roadway design. The *County of Orange General Plan* has designated a Class II Bike Trail on Antonio Parkway/La Pata Avenue. A Class II facility is in a typical highway shoulder that is signed and marked for bike lanes with no vehicle parking allowed. The County of Orange Standard Plans 1101 and 1103 identify that the roadway shoulder should be eight feet wide for Major Arterial and ten feet wide for a primary arterial highway. This has been provided in the standard cross-section for the proposed improvements. The bike lane/shoulder widths on Antonio Parkway and La Pata Avenue at the SR-74 intersection match the shoulder widths designated by Caltrans in Caltrans right-of-way.

In addition to the on-road bikeway, the County *Master Plan of Bikeways* designates a Class I (off-road) bikeway parallel to San Juan Creek, and the *Master Plan of Regional Riding and Hiking Trails* shows a regional riding and hiking trail parallel to San Juan Creek. The embankments under the bridge have been designed to accommodate the multi-use trail required by the *Master Plan of Regional Riding and Hiking Trails* on the abutment on the southern side of the creek, and the pathway is consistent with the *Master Plan of Bikeways* on the northern side of the creek.

Utilities

Roadway design would require modification to several existing utilities or would require work within their easements. Modification may be necessary to allow for appropriate sizing of utilities to serve the approved development adjacent to the roadway. The following utility modifications would be required:

- Approval of grading in the Santa Margarita Water District (SMWD) easement;
- Approval of grading in the Capistrano Valley Water District (CVWD)/City of San Juan Capistrano easement;
- Relocation of existing San Diego Gas & Electric (SDG&E) utility lines; and

- Relocation of existing AT&T utility lines.

Grading Requirements

From the southern boundary of Ladera Ranch to the bridge across San Juan Creek, the grading for the full six-lane cross-section was done in conjunction with the initial phase (four lanes) of Antonio Parkway. Through this portion of the study area, only minor grading would be required. Grading would be required for construction of the bridge abutments and the area south of the bridge. Approximately 100,000 cubic yards of cut and fill would be required for the Project. Grading for the project would be balanced.

Two staging areas have been identified. The first would be located at the northwestern corner of Antonio Parkway and SR-74. This site is currently a staging area for the ongoing construction of improvements on SR-74. The second site is north of the bridge. The environmental impacts for both staging areas have been addressed pursuant to CEQA as part of the environmental compliance documents for the Ranch Plan (which provided the CEQA documentation for the SR-74 improvements). The roadway would remain open during construction. No detours would be required.

Purpose and Need

The purpose of the proposed project is to accomplish the following specific objectives:

- To provide sufficient transportation infrastructure to meet the long-term travel demand for southeastern Orange County.
- To provide improvements consistent with planning programs, including the Orange County *Master Plan of Arterial Highways* and the County of Orange *Transportation Element.*
- To provide improvements to satisfy long term transportation demand planning for the region.

The Project's need has been established through a number of previous studies. The roadway was originally designated on the County of Orange *Transportation Element* as a commuter highway with a "right-of-way reserve" designation for a major arterial highway. The "right-of-way reserve" designation is used when origin-destination needs have been identified but the ultimate capacity requirements have not been established. In 1995, the County of Orange conducted studies to establish a precise alignment and capacity requirements for Antonio Parkway. As a result of these studies, Antonio Parkway was designated as a major arterial highway, which is a 6-lane, divided roadway with 120 feet of right-of-way. This need has been confirmed through subsequent studies conducted for the Ranch Plan, a large scale Planned Community adjacent to Antonio Parkway.

3. Study Methods

Data regarding biological resources documented to be, or potentially present, within the Project area were obtained from the Draft NCCP/MSAA/HCP and Draft Joint Programmatic EIR/EIS that was published for public review in July 2006. Compilation of the biological resources database is described in detail in Chapter 3, Section 3.1 of the Draft Southern Subregion NCCP/MSAA/HCP, and is summarized briefly here.

The initial database consisted of a vegetation map and special-status species information compiled into a GIS coverage by the County of Orange for the Southern NCCP/MSAA/HCP study area in 1993. The database was updated with remapping of the vegetation communities in the development planning areas of Rancho Mission Viejo (RMV) in 2005 by Glenn Lukos Associates (GLA) and additional data from wildlife and botanical surveys conducted between 1993 and 2004 (see pages 3-4 through 3-6 of the Draft Southern Subregion NCCP/MSAA/HCP).

The vegetation mapping used the Orange County Land Cover/Habitat Classification System (Gray and Bramlet 1992), which is a hierarchical system that identifies separate vegetation associations and subassociations. In addition, beginning in 2002 GLA wetland specialists conducted a "project-level" jurisdictional wetland delineation for the proposed development planning areas pursuant to Section 404 of the Clean Water Act and the CDFG pursuant to Section 1600 of the Fish and Game Code, including areas of riparian vegetation (GLA 2004).

The database for special-status wildlife and plant species in the study area is compiled from the cumulative results of more than 25 general and focused biological survey efforts conducted between approximately 1990 and 2004 and existing databases. Focused surveys throughout the Southern Subregion NCCP/MSAA/HCP study area, including the Antonio Parkway Project area, were conducted for the federally-listed threatened coastal California gnatcatcher (*Polioptila californica californica*), the federally- and state-listed endangered least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*), the federally-listed endangered arroyo toad (*Anaxyrus (Bufo) californicus*), Riverside fairy shrimp (*Streptocephalus woottoni*), and San Diego fairy shrimp (*Branchinecta sandiegonensis*), and the federally-listed threatened and state-listed endangered thread-leaved brodiaea (*Brodiaea filifolia*).

These various survey efforts have resulted in a cumulative database that provides a strong portrayal of the abundance, richness and distribution of biological resources in the Project area.

4. Environmental Setting

Antonio Parkway is located approximately 2.5 miles east of Interstate 5 (I-5) and provides the only direct route between the communities of Ladera Ranch, Mission Viejo, and Rancho Santa

Margarita. At SR-74, the name of the roadway changes to La Pata Avenue, which extends to the south and currently terminates at the Prima Deshecha Landfill. The Orange County Master Plan of Arterial Highways depicts La Pata Avenue as continuing through the landfill to Avenida Pico in the City of San Clemente.

Antonio Parkway has been constructed to full standard to the southern boundary of the Ladera Ranch Planned Community; it is a four-lane roadway from the Ladera Ranch Planned Community's southern boundary to SR-74. The bridge across San Juan Creek was built as part of the initial phase of improvements associated with the Ladera Ranch Planned Community and is 68 feet wide. No lighting or sidewalks have been provided south of the Ladera Ranch Planned Community, as these would be implemented as part of ultimate improvements. Though only interim improvements were constructed within the study area, the ultimate right-of-way was graded from the southern boundary of Ladera Ranch to the San Juan Creek Bridge with the initial phase of construction in 1998. In 2007, the area was cleared of vegetation, including the area beneath the bridge. As a result, the vegetation on site is limited to regrowth.
Key features within and adjacent to the Project limits include the following:

- San Juan Creek, located north of SR-74, is a major drainage basin that flows in an east-west direction through the Project site. The Creek is a major drainage that discharges into the Pacific Ocean in the vicinity of the City of Dana Point.

- SR-74 is the southern limit of the Project. SR-74 connects Riverside and Orange Counties, traversing the Cleveland National Forest. Improvements are currently being constructed to widen SR-74 to 4 lanes from the County of Orange/City of San Juan Capistrano boundary to approximately 1,900 feet east of Antonio Parkway. This is a distance of approximately one mile.

- Ladera Ranch is a planned community located immediately north of the Project site. This project is mostly built out and provides for a mix of residential and commercial uses.

- Rancho Mission Viejo owns the land adjacent to the Project site. Their headquarters is located approximately $^{1}/_{3}$ mile west of the project limits.

- The Rancho Mission Viejo Riding Park is a private equestrian sports center located south of Project limits at the SR-74/La Pata Avenue Intersection. This property is currently in escrow and will be transferred to the City of San Juan Capistrano in 2010. The use will remain the same.

- The City of San Juan Capistrano is located approximately one mile to the west of the Project limits.

- San Juan Hills High School is located at 29211 Vista Montana, San Juan Capistrano, which is approximately 0.75 miles south of the SR-74/La Pata Avenue intersection. La Pata Avenue provides the only access to the school.

- The Prima Deshecha Landfill is located at 32250 La Pata Avenue, San Juan Capistrano. The landfill is located at the current terminus of La Pata Avenue. The entrance to the landfill is approximately 1.8 miles south of the SR-74/La Pata Avenue intersection. La Pata Avenue provides the only access to the landfill.

4.1 Description of the Existing Biological and Physical Conditions

The Project footprint comprises approximately 61.6 acres, including the 42.7 acres of permanent impact area and 18.9 acres of temporary impact area required for bridge expansion, remedial grading, staging areas, and temporary construction easement areas (*Figure 3*). Of the 61.6 total acres within the Project footprint, approximately 26.9 acres consist of natural vegetation communities (sage scrub, grassland, oak forest, and riparian and the remaining 34.7 acres consist of the non-natural land covers (agriculture and developed) (*Table 1*).

4.2 Regional Species and Habitats of Concern

Based on the numerous special-status wildlife and rare plant surveys conducted in the Project vicinity for the Southern Subregion NCCP/MSAA/HCP, only two special-status wildlife species have been detected within the Project footprint or immediately adjacent to the Project area. A northern red-diamond rattlesnake (*Crotalus ruber ruber*) was detected within the Project area and the yellow-breasted chat (*Icteria virens*) was detected immediately east of the Project boundary. Both observations are located just south of SR-74 (*Figure 4*). *Figure 4* also shows the Southern Subregion special-status species occurrence data for the Project vicinity. Special-status species detected within the general vicinity of the Project area include several riparian/wetland-associated species in San Juan Creek, such as the listed least Bell's vireo and arroyo toad, and a variety of non-listed special-status species, such as yellow-breasted chat, Cooper's hawk (*Accipiter cooperii*), southwestern pond turtle (*Actinemys marmorata pallida*), and western spadefoot toad (*Scaphiopus hammondii*). Upland special-status wildlife species detected in the Project vicinity include the listed California gnatcatcher, and the non-listed coastal cactus wren (*Campylorhynchus brunneicapillus couesi*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), loggerhead shrike (*Lanius ludovicianus*), grasshopper sparrow (*Ammodramus savannarum*), California horned lark (*Eremophila alpestris actia*), orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), coastal western whiptail (*Aspidoscelis tigris stejnegeri*), and San Diego horned lizard (*Phrynosoma coronatum*; blainvillei population). These species are considered to have a moderate to high potential to occur in the Project impact area due to their proximity to the Project area and suitable habitat within the Project area.

No special-status plant species were detected, or are expected to occur, within the Project footprint nor within the Project area vicinity.

Table 2 in Section 9, Appendix, provides a summary of the state and/or federally designated special-status wildlife species that were analyzed in the Draft Joint Programmatic EIR/EIS for the Draft Southern Subregion NCCP/MSAA/HCP. *Table 3* in Section 9, Appendix, provides a summary the state and/or federally and California Native Plant Society (CNPS) special-status plant species that were analyzed in the Draft Joint Programmatic EIR/EIS for the Draft Southern Subregion NCCP/MSAA/HCP.

Two habitats of concern occur in the Project area – coastal sage scrub and riparian habitats. Coastal sage scrub supports a rich diversity of wildlife species, including birds, mammals, reptiles, and invertebrates. While many widely ranging species that occur throughout shrublands in California may be encountered in coastal sage scrub, some species are restricted almost exclusively to this vegetation community. Due to its loss and fragmentation in southern California as a result of urbanization, coastal sage scrub was the focus of the initial NCCP planning efforts in the early 1990s and is a Conserved Vegetation Community in the Draft Southern Subregion NCCP/MSAA/HCP.

Most natural riparian vegetation in southern California has been lost or degraded due to land use conversions to agricultural, urban, and recreational uses; channelization for flood control; sand and gravel mining; ground water pumping; water impoundments; and various other changes. Riparian habitats are biologically productive and diverse, and they are the exclusive habitat of several threatened or endangered wildlife species and many other special-status plant and wildlife species. The riparian community is a Conserved Vegetation Community in the Draft Southern Subregion NCCP/MSAA/HCP and was also addressed in the U.S. Army Corps of Engineers (ACOE) San Juan Creek and Western San Mateo Creek Watersheds Special Area Management Plan (SAMP) pursuant to Section 404 of the Clean Water Act.

4.3 Vegetation

The predominant natural vegetation communities in the Project area include coastal sage scrub (9.6 acres) and annual, non-native grassland (14.4 acres). Oak forest comprises 0.2 acre. Riparian comprises 2.7 acres associated with temporary impacts that would occur due to widening of the Antonio Parkway bridge. The Project area also includes 20.1 acres of agriculture and 14.6 acres of developed. It should be noted that vegetation clearing was conducted in Planning Area 1 in 2007, and with the exception of riparian communities, there has been little or no regeneration of the natural vegetation communites that were present before clearing. However, the

quantification of vegetation communities present in the Project area is based on the vegetation database for the are prior to the clearing of Planning Area 1. Discussion of these vegetation communities and artificial land covers are provided below.

Coastal Sage Scrub

Coastal sage scrub is dominated by a characteristic suite of low-statured, aromatic, drought-deciduous shrubs and subshrub species. Composition varies substantially depending on physical circumstances and the successional status of the vegetation community. Characteristic species include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), California encelia (*Encelia californica*), and several species of sage (*e.g., Salvia mellifera, Salvia apiana*).

Annual Grassland

Annual grassland primarily is composed of annual grass species introduced from the Mediterranean basin and other Mediterranean-climate regions, with variable presence of non-native and native herbaceous species. Annual grassland may be dominated by several species of grasses, including slender oat (*Avena barbata*), wild oat (*Avena fatua)*, foxtail chess (*Bromus madritensis*), soft chess (*Bromus hordeaceus*), ripgut grass (*Bromus diandrus*), barleys (*Hordeum* spp.), Italian ryegrass (*Lolium multiflorum*), perennial ryegrass (*Lolium perenne*), rat-tail fescue (*Vulpia myuros*), and Mediterranean schismus (*Schismus barbatus*). Annual grasslands also typically support several annual forbs such as red-stemmed filaree (*Erodium cicutarium*), broad-lobed filaree (*Erodium botrys*), mustards [(*Brassica* spp.), short-podded mustard (*Hirschfeldia incana*), wild radish (*Raphanus sativus*)], tocalote (*Centaurea melitensis*), Italian thistle (*Carduus pycnocephalus*), and artichoke thistle (*Cynara cardunculus*).

Oak Forest

The dominant species in oak forest in the Project area is coast live oak (*Quercus agrifolia*). Oak forest typically has 80 percent or more canopy cover (Gray and Bramlet 1992). Many understory shrubs in oak forest are shade tolerant and include scrub oak (*Quercus berberidifolia*), snowberry (*Symphoricarpos mollis*), California-lilac (*Ceanothus* spp.), laurel sumac, gooseberry (*Ribes speciosum*), toyon (*Heteromeles arbutifolia*), California laurel (*Umbellularia californica*), poison-oak (*Toxicodendron diversilobum*), Mexican elderberry (*Sambucus mexicana*), and sugarbush (*Rhus ovata*). Herbaceous understory species include California goldenrod (*Solidago californica*), western wild rye (*Elymus glaucus*), giant ryegrass, *Melica* spp., *Stellaria* spp., *Claytonia* spp., ripgut grass, wild cucumber (*Marah* spp.), nightshade, *Phacelia* spp., and common eucrypta (*Eucrypta chrysanthemifolia*) (Gray and Bramlet 1992)

Of the 0.2 acre of oak forest in the Project area, 0.1 acre was removed during vegetation clearing in Planning Area 1 in 2007 and has not regenerated.

Riparian

The 2.7 acres of riparian vegetation in the Project area that would be subject to temporary impacts related to expansion of the Antonio Parkway bridge over San Juan Creek includes 2.4 acres of mulefat scrub, 0.1 acre of scalebroom/mulefat scrub ecotone, and 0.2 acre of southern willow scrub.

Mulefat scrub is dominated by mulefat (*Baccharis salicifolia*), but also may include willows (*Salix* spp.), sedges (*Carex* spp.), stinging nettle (*Urtica dioica*), Bermuda grass (*Cynodon dactylon*), western ragweed (*Ambrosia psilostachya*), California mugwort (*Artemisia douglasiana*), Douglas' nightshade (*Solanum* spp.), castorbean (*Ricinus communis*), cocklebur (*Xanthium* spp.), rabbit's-foot grass (*Polypogon monspeliensis*), knotgrass (*Paspalum* sp.), and barnyard grasses (*Echinochloa* sp.). The area mapped as scalebroom/mulefat scrub includes stands of scalebroom (*Lepidospartum squamatum*) mixed with the mulefat.

Southern willow scrub is dominated by willow trees and also may contain gooseberry, Mexican elderberry, and an understory of herbaceous hydrophytes.

Agriculture

The 20.1 acres of agriculture in the Project area primarily consist of former grazing pastures.

Developed

The developed category includes all urban areas, road, non-natural parks, and cleared and graded area. The 14.6 acres of developed in the Project area include the existing Antonio Parkway, SR-74, and Rancho Mission Viejo Riding Park.

4.4 Animals

The common animals expected to occur in the Project area are reflective of the species typically observed in coastal sage scrub, annual grasslands, and riparian communities.

Birds

In addition to the special-status bird species documented on the Project vicinity and listed in Section 4.2 on page 11, common birds expected to occur include mourning dove (*Zenaida macroura*), rock pigeon (*Columba livia*), western kingbird (*Tyrannus vociferans*), Anna's

hummingbird (*Calypte* anna), black phoebe (*Sayornis nigricans*), song sparrow (*Melospiza melodia*), wrentit (*Chamaea fasciata*), bushtit (*Psaltriparus minimus*), California towhee (*Pipilo crissalis*), spotted towhee (*Pipilo erythrophthalmus*), house finch (*Carpodacus mexicanus*), western meadowlark (*Sturnella neglecta*), common yellowthroat (*Geothlypis trichas*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), European starling (*Sturnus vulgaris*), and house sparrow (*Passer domesticus*).

Reptiles and Amphibians

In addition to the special-status reptiles documented on the Project vicinity and listed in Section 4.2 on page 11, common reptiles expected to occur in the Project area include common side-blotched lizard (*Uta stansburiana*), southern alligator lizard (*Elgaria multicarinata*), western fence lizard (*Sceloporus occidentalis*) common gartersnake (*Thamnophis sirtalis*), common kingsnake (*Lampropeltis getulus*), gophersnake (*Pituophis cantifer*), and western rattlensnake (*Crotalus oreganus*).

In addition to the special-status amphibians documented on the Project vicinity and listed above, common amphibians expected to occur include California treefrog (*Pseudacris cadaverina*), northern Pacific treefrog (*Pseudacris regilla*), and western toad (*Anaxyrus boreas*).

Mammals

No special-status mammals have been documented in the Project area. Common mammals expected to occur in the Project vicinity include a variety of small rodents (e.g., *Peromyscus* spp., *Reithrodontomys megalotis*, *Neotoma* spp., *Microtis californicus*), Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Spermophilus beecheyi*), cottontail rabbits (*Sylvilagus* spp.), coyote (*Canis latrans*), common raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and mule deer (*Odocoileus hemionus*).

5. Project Impacts

Implementation of the proposed road widening project will permanently impact 42.7 acres and temorarily impact 18.9 acres (*Table 1*). The majority of the permanent impacts would be agriculture and developed land (28.0 acres). However, 14.7 acres of coastal sage scrub and annual grassland would be permanently impacted and 12.2 acres of coastal sage scrub, annual grassland, oak forest, and riparian would be temporarily impacted (*Table 1*).

These impacts were previously analyzed in conjuction with prior projects that were reviewed under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) and authorized by the resource agencies, as applicable to federally and/or state regulated

biological resources, including listed species and wetlands. A description of these analyses, reviews, and authorization is provided here.

Prior NEPA Review

The Project has been previously analyzed in accordance with NEPA by USFWS as described below. (The Proposed Project has also been reviewed by the ACOE under the San Juan Creek and Western San Mateo Creek Watersheds SAMP. Details concerning this review are not included herein.)

Acting as Lead Agency under the NEPA, the USFWS prepared an EIS in accordance with the provisions of the FESA for the Draft Southern Subregion NCCP/MSAA/HCP. This EIS was a joint NEPA/CEQA document with the County of Orange acting as lead CEQA agency in cooperation with the California Department of Fish and Game (CDFG) for the NCCP/MSAA/HCP. The federal component of the Plan, the Southern Subregion HCP (SSHCP) provides for the conservation of designated federally-listed and unlisted species and their associated habitats that are currently found within the 132,000-acre Southern HCP study area. The SSHCP also provides regulatory coverage for projects addressed by the SSHCP for all species and habitats that it identifies for coverage.

The USFWS distributed the Final EIS for public review on November 13, 2006. The Implementation Agreement (IA) was signed by the Participating Landowners (the County, RMV, and Santa Margarita Water District [SWMD]) in December 2006. The USFWS issued a Record of Decision, signed the IA, approved the SSHCP, and issued Incidental Take Permits (ITP) to RMV and SMWD on January 10, 2007. The USFWS selected and approved Alternative B-12 as the Environmentally Preferred Alternative in the SSHCP/ITP (January 2007). The proposed improvements to Antonio Parkway/La Pata Avenue were included in Alternative B-12 and were addressed as part of the Joint Programmatic EIS/EIR 584. Specifically the widening of Antonio Parkway is included in Chapter 11 of the Draft Southern Subregion NCCP/MSAA/HCP and described in Appendix S of the NCCP/MSAA/HCP. The widening improvements are graphically represented on Figures 187-R (Proposed Circulation Network) and Figure 166-M (Rancho Mission Viejo Covered Activities and Open Space Areas), attached in Section 9, Appendix. The impacts associated with the Project are included in Chapter 13 of the Draft Southern Subregion NCCP/MSAA/HCP, specifically Tables 13-17, Table 13-18 and Tables 13-19A and 13-19B.

Consultation under FESA - Biological Opinion/Conference Opinion 1-6-07-F-812.8

On January 10, 2007 the USFWS published its Intra-Service Formal Section 7 Consultation/Conference for Issuance of an Endangered Species Act Section 10(a)(1)(B) Permit (TE144140-0) for the Southern Orange Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan, Orange County, California (1-6-07-F-812.8) ("the Opinions"). The Opinions state that proposed incidental take will occur as a result

of habitat loss and disturbance associated with urban development and other proposed activities (i.e., Covered Activities) identified in the Plan. The Opinions further identify "construction of residential, commercial, industrial and infrastructure facilities" as RMV Covered Activities (Page 14, FWS-OR-812.8). Table 3 in the Opinions sets forth impacts associated with all RMV Covered Activities including construction of infrastructure facilities such as roads. Table 3 is included herein as in Section 7, Appendix. The Opinions address 6 federally listed animals, 1 federally listed plant, and 25 unlisted plants and animals for a total of 32 species.

Consistency of Proposed Project with SSHCP Project Description and Biological Opinion/Conference Opinion 1-6-07-F-812.8

Figure 5 shows the relationship between the proposed widening of Antonio Parkway/La Pata Avenue as engineered and the RMV Covered Activities in the SSHCP. *Figure 5* illustrates that the widening project as engineered is within the limits of impacts analyzed in the SSHCP or previously entitled as part of the initial construction of Antonio Parkway for which a 4(d) permit was issued.

Table 1 provides a summary of the impacts that would occur to vegetation communities and land covers assocated with the proposed Project and in relation to the impacts that had already been analyzed in the Draft Southern Subregion NCCP/MSAA/HCP and initial construction of Antonio Parkway, as described above. The positive residual impacts in the Habitat Reserve in *Table 1* represent any impacts that would occur in the Habitat Reserve within the boundaries of the Project area that were not specifically analyzed in the Draft Southern Subregion NCCP/MSAA/HCP or in previous impacts analyzed in the entitlement of Ladera Ranch and construction of Antonio Parkway. For example, for grassland, the Antonio Parkway Widening Project would result in permanent impacts to 8.0 acres. The Draft Southern Subregion NCCP/MSAA/HCP reported 6.1 acres of impact in Planning Area 1, 0.1 acre of permanent impact associated with the extension of La Pata, and 1.7 acres previously analyzed for Ladera Ranch and Antonio Parkway. These permanent impacts total 7.9 acres. Therefore, 0.1 acre (8.0 minus 7.9 acres) of grassland would be impacted by the proposed Project that was not anticipated in the SSHCP. *Table 1* indicates this very small net increase in permanent impacts to grassland (0.1 acre). Table 1 also indicates small increases in temporary impacts to coastal sage scrub (0.2 acre), grassland (0.4 acre) and agriculture (0.6 acre). These increased impacts are primarily related to the temporary construction easement shown in *Figure 5*.

TABLE 1. SUMMARY OF IMPACTS (ACRES) TO VEGETATION COMMUNITIES AND LANDCOVERS ASSOCIATED WITH THE ANTONIO PARKWAY WIDENING PROJECT IN RELATION TO SOUTHERN SUBREGION NCCP/MSAA/HCP IMPACT ANALYSIS

Vegetation Communities and Land Covers	Antonio Parkway Widening Project Total Impact Area[1]		Previously Analyzed Impacts								Residual Impacts in Habitat Reserve[6]	
			Within Planning Area 1		Temporary Bridge Impacts	Permanent Impacts Within Cow Camp Road Alignment[2]	Within Other Infrastructure Impacts[3]		Permanent Impacts Within La Pata Evaluation Area[4]	Permanent Impacts Previously Analyzed in Antonio 4(d)[5]		
	Perm.	Temp.	Perm.	Temp.			Perm.	Temp.			Perm.	Temp.
Conserved Vegetation Communities												
Sage Scrub	6.7	2.9	2.8	0.9	0.4	2.8	1.2	0.8	0.0	5.0	-5.1	0.2
Grassland	8.0	6.4	6.1	5.2	0.2	0.0	0.0	0.1	0.1	1.7	0.1	0.4
Riparian	0.0	2.7	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oak Forest	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Subtotal	14.7	12.2	8.9	6.3	3.3	2.8	1.2	1.0	0.1	6.7	-5.0	0.6
Non-Conserved Vegetation Communities and Land Covers												
Agriculture	14.1	6.0	10.9	3.8	0.0	1.0	0.7	0.5	0.0	2.3	-0.8	0.6
Developed	13.9	0.7	7.6	0.1	0.4	0.6	0.3	1.0	0.1	6.2	-0.9	0.0
Subtotal	28.0	6.7	18.5	3.9	0.4	1.6	1.0	1.5	0.1	8.5	-1.7	0.6
Total	42.7	18.9	27.4	10.2	3.7	4.4	2.2	2.5	0.2	15.2	-6.7	1.2

[1] Includes entire project area. Permanent impacts include areas within grading limits and temporary impact areas include bridge, remedial grading areas, and temporary construction easements (see Figure 3).

[2] Cow Camp Road grading limits were analyzed as permanent impacts in the Southern Subregion NCCP/MSAA/HCP.

[3] Other infrastructure includes permanent and temporary impacts associated with the existing RMV water system, new water and sewer, proposed trails, and PA 1 infrastructure. These impacts were previously analyzed separately in the Southern Subregion NCCP/MSAA/HCP so the acreages represent the cumulative total of infrastructure impacts.

[4] The La Pata Evaluation Area was analyzed in the Southern Subregion NCCP/MSAA/HCP as part of the extension of La Pata.

[5] The Antonio 4(d) area depicts areas that were previously analyzed in the habitat loss assessment for the entitlement of Ladera Ranch and construction of the existing Antonio Parkway, thus indicating the limits of previously analyzed impacts.

[6] The residual impacts in the Habitat Reserve represent any potential additional impacts in the Habitat Reserve that were not specifically analyzed in the Southern Subregion NCCP/MSAA/HCP due to any changes in the project footprint.

The negative residuals shown on *Table 1* are possible because of the overlap of impact areas for vegetation communities. Each of the types of infrastructure impacts was analyzed separately in the Draft Southern Subregion NCCP/MSAA/HCP because the alignments were conceptual and the impacts were estimates. Therefore, where there is overlap or crossing of infrastructure such as where a trail crosses a sewer line, the impact is counted twice, resulting in an overestimate of the impacts. Where negative residual impacts occur, it can be concluded that all potential impacts were already accounted for in the NCCP/MSAA/HCP or the previous analysis for Ladera and Antonio Parkway, and that no additional impacts would occur as a result of the Project.

There are no impacts to FESA-listed species associated with the Project that have not been previously analyzed. A single occurrence of the SSHCP Covered Species northern red-diamond rattlesnake occurs within the project footprint, however, this impact is an overlap zone with PA 1 impacts and has therefore already been analyzed in the NCCP/MSAA/HCP. In addition, impacts to the habitats supporting other special-status species not detected within the Project boundaries, but with potential to occur, including coastal California gnatcatcher, least Bell's vireo, arroyo toad, coastal cactus wren, rufous-crowned sparrow, yellow-breasted chat, grasshopper sparrow, California horned lark, loggerhead shrike, western spadefoot toad, orange-throated whiptail, and western whiptail, were analyzed in the Draft Southern Subregion NCCP/MSAA/HCP and associated Joint programmatic EIR/EIS.

With the exception of some small increases in permanent impacts (0.1 acre of grassland) and temporary impacts primarily associated with temporary construction easements (1.2 acres), it appears that overall the Project, as engineered, is consistent with the project described in the Draft Southern Subregion NCCP/MSAA/HCP and Joint Programmatic EIR/EIS, the effects of which were analyzed by the USFWS in Biological Opinion/Conference Opinion 1-6-07-F-812.8.

6. Mitigation Measures

The primary mitigation for Project impacts is the preservation, monitoring and management of the approximately 32,000-acre Southern Subregion Habitat Reserve, as described in detail in Chapter 7 of the Draft Southern Subregion NCCP/MSAA/HCP. An additional requirement of the SSHCP, as described in Appendix U, Avoidance and Minimization Measures, of the Draft Southern Subregion NCCP/MSAA/HCP, is preparation of a Biological Resources Construction Plan (BRCP) designed to protect biological resources during construction. The BRCP will contain at minimum the following:

- Specific measures for the protection of sensitive amphibian, mammal, bird, and plant species during construction.

- Identification and quantification of habitats to be removed.

- Design of protective fencing around conserved habitat areas and the construction staging areas.

- Specific construction monitoring programs for sensitive species required by Wildlife Agencies including, but not limited to, programs for the arroyo toad, western spadefoot toad, southwestern pond turtle, cactus wren, and coastal California gnatcatcher. Such measures shall be consistent with prior Section 7 consultations and 1600 agreements; e.g., Arroyo Trabuco Golf Course.

- Specific measures required by Wildlife Agencies for the protection of sensitive habitats including, but are not limited to, erosion and siltation control measures, protective fencing guidelines, dust control measures, grading techniques, construction area limits, and biological monitoring requirements.

Appendix U also requires the restoration of all temporary impact areas to equivalent or better conditions compared to the existing condition at the time of impact. Further measures to minimize impacts to biological resources are set forth in the regulatory agency permits discussed below.

7. Permits Required

All environmental permits related to impacts to biological resources have been secured, as described above, including the SSHCP Section 10(a) permit, CDFG Streambed Alteration Agreement #1600-2006-0178-R5, ACOE Section 404 #200602159-YJC and San Diego Regional Water Quality Control Board 401 Certification (No. 06C-047) and Waste Discharge Requirements (WDID No. 9 000001486).

8. References

Glenn Lukos Associates. 2004. Jurisdictional delineation of areas subject to the U.S. Army Corps of Engineers. Prepared for Rancho Mission Viejo, Orange County, California. 73 pp + figures.

Gray, J. and D. Bramlet. 1992. Habitat Classification System Natural Resources Geographic Information System (GIS) Project. Prepared for the Orange County Environmental Management Agency.

Orange, County of. 2004. The Ranch Plan General Plan Amendment/Zone Change (PA 01-114), Final Program Environmental Impact Report 589. State Clearinghouse Number 20033021141. Prepared by BonTerra Consulting, November 2004.

9. Appendix

Table 2. Special-Status Wildlife Species Addressed in Southern Subregion EIR/EIS

Table 3. Special-Status Plan Species Addressed in Southern Subregion EIR/EIS

Figure 187-R. Proposed Circulation Network

Figure 166-M. Rancho Mission Viejo Covered Activities and Open Space Areas

Table 3. Impacts associated with RMV Covered Activities from FWS-OR-812.8

Table 2
Special-Status Wildlife Species Addressed in Southern Subregion EIR/EIS

Common Name (Scientific Name)	Federal/State/	Vegetation Communities Providing Habitat	Number of Locations/ Populations in Southern Subregion Study Area	Potential to Occur in Project Impact Area
Birds				
American White Pelican (*Pelecanus erythrorhynchos*)	None/CSC	large open water bodies	No data points	None
Barn Owl (*Tyto alba*)	None/None	grassland[2], agriculture, riparian, woodland	57 historic nest sites[3]	Moderate
Bell's Sage Sparrow (*Amphispiza belli belli*)	BCC/WL	coastal sage scrub, chaparral	2 locations	Low
Bewick's Wren (*Thyromanes bewickii*)	None/None	coastal sage scrub, chaparral, riparian, woodland	No data points	High
Black Skimmer (*Rynchops niger*)	BCC/CSC	open water, marsh	No data points	None
Burrowing Owl (*Athene cunicularia*)	BCC/CSC	grassland, barley fields	No data points	Low potential to nest; moderate potential to winter
Coastal Cactus Wren (*Campylorhynchus brunneicapillus couesi*)	BCC/CSC	coastal sage scrub w/southern cactus scrub	1,408 locations	Low
Coastal California Gnatcatcher (*Polioptila californica californica*)	FT/CSC	coastal sage scrub	737 locations	Low
California Gull (*Larus californicus*)	None/WL	agriculture, water, beach, marsh	No data points	Low
California Horned Lark (*Eremophila alpestris actia*)	None/WL	grassland, agriculture, woodland	16 locations	Moderate
California Thrasher (*Toxostoma redivivum*)	None/None	coastal sage scrub, chaparral	No data points	Low

Table 2
Special-Status Wildlife Species Addressed in Southern Subregion EIR/EIS

Common Name (Scientific Name)	Federal/State/	Vegetation Communities Providing Habitat	Number of Locations/ Populations in Southern Subregion Study Area	Potential to Occur in Project Impact Area
Cooper's Hawk (*Accipiter cooperii*)	None/WL	woodland, riparian	44 historic nest sites	Moderate
Double-crested Cormorant (*Phalacrocorax auritus*)	None/WL	open water, salt marsh	No data points	None
Elegant Tern (*Sterna elegans*)	BCC/WL	open water	No data points	None
Ferruginous Hawk (*Buteo regalis*)	BCC/WL	grassland, agriculture	No data points	Moderate potential to forage in grasslands
Golden Eagle (*Aquila chrysaetos*)	BCC/WL, FP	coastal sage scrub, chaparral, grassland, agriculture, cliff & rocks	1 historic nest site	Low potential for forage in grasslands
Grasshopper Sparrow (*Ammodramus savannarum*)	None/CSC	Grassland, barley fields	730 locations	Moderate
Lark Sparrow (*Chondestes grammacus*)	None/SAL	grassland-shrub-woodland margins	No data points	Low
Lawrence's Goldfinch (*Carduelis lawrencei*)	BCC/SAL	coastal sage scrub, chaparral	1 location	Moderate
Least Bell's Vireo (*Vireo bellii pusillus*)	FE/SE	southern willow scrub riparian and willow riparian forest	60 nesting sites	Low
Loggerhead Shrike (*Lanius ludovicianus*)	BCC/CSC	coastal sage scrub, grassland, agriculture	21 locations	Moderate
Long-eared Owl (*Asio otus*)	None/CSC	woodland, riparian	8 historic nest sites	Low
Merlin (*Falco columbarius*)	None/WL	grassland, agriculture	No data points	Moderate potential to forage in grasslands
Northern Harrier (*Circus cyaneus*)	None/CSC	marsh (breeding); grassland, agriculture, coastal sage scrub (foraging)	2 historic nest sites	Moderate potential to forage in grasslands and scrub; no nesting habitat
Pacific Slope Flycatcher (*Empidonax difficilis*)	None/None	woodland, riparian, chaparral	No data points	Low
Red-breasted Sapsucker (*Sphyrapicus ruber*)	None/SAL	Woodland	No data points	Low
Red-shouldered Hawk (*Buteo lineatus*)	None/None	woodland, riparian	78 historic nest sites	Moderate
So. Ca. Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)	None/WL	coastal sage scrub	411 locations	Low

Table 2
Special-Status Wildlife Species Addressed in Southern Subregion EIR/EIS

Common Name (Scientific Name)	Federal/State/	Vegetation Communities Providing Habitat	Number of Locations/ Populations in Southern Subregion Study Area	Potential to Occur in Project Impact Area
Sharp-shinned Hawk (*Accipiter striatus*)	None/WL	coastal sage scrub, grassland, woodland, riparian	No data points	Moderate potential to forage
Short-eared Owl (*Asio flammeus*)	None/CSC	saltmarsh, grassland, agriculture	No data points	Low
Southwestern Willow Flycatcher (*Empidonax traillii extimus*)	FE/SE	southern willow scrub and willow riparian forest	7 nesting sites	Low
Swainson's Hawk (*Buteo swainsoni*)	BCC/ST	grassland, agriculture	No data points	Very Low
Tricolored Blackbird (*Agelaius tricolor*)	BCC/CSC	marsh (breeding); grassland, agriculture (foraging)	Several historic nesting areas	Moderate potential to forage in grasslands; no nesting habitat
Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*)	FC, BCC/SE	southern willow scrub and willow riparian forest	No data points	Very low
White-tailed Kite (*Elanus leucurus*)	None/FP	riparian, woodland, grassland, agriculture, coastal sage scrub	36 historic nest sites	Moderate
Yellow-breasted Chat (*Icteria virens*)	None/CSC	riparian	130 nesting sites	Low
Yellow Warbler (*Dendroica petechia*)	None/CSC	riparian	34 nesting sites	5,125
Amphibians				
Arroyo Toad (*Anaxyrus (Bufo) californicus*)	FE/CSC	riparian, water courses with sandy benches along streams	Known from San Juan Creek	Moderate
California Red-legged Frog (*Rana aurora draytonii*)	FT/CSC	riparian, water courses	No data points	None
Coast Range Newt (*Taricha torosa torosa*)	None/CSC	coastal sage scrub, chaparral in association with water	No data points	Low
Western Spadefoot Toad (*Scaphiopus hammondii*)	None/CSC	coastal sage scrub, chaparral, grassland, vernal pool	22 locations	Moderate
Reptiles				
California Glossy Snake (*Arizona elegans occidentalis*)	None/None	coastal sage scrub, chaparral, grassland	4 locations	Moderate
California Mountain Kingsnake (*Lampropeltis zonata*) (San Diego population)	None/CSC	coniferous forest, chaparral (high elevation)	No data points	None
Coast Patch-nosed Snake (*Salvadora hexalepis virgultea*)	None/CSC	coastal sage scrub, chaparral, grassland	3 locations	Moderate
Coastal Western Whiptail (*Aspidoscelis tigris stejnegeri*)	None/SAL	coastal sage scrub	85 locations	Moderate

Table 2
Special-Status Wildlife Species Addressed in Southern Subregion EIR/EIS

Common Name (Scientific Name)	Federal/State/	Vegetation Communities Providing Habitat	Number of Locations/ Populations in Southern Subregion Study Area	Potential to Occur in Project Impact Area
Coronado Skink (*Eumeces skiltonianus interparietalis*)	None/CSC	chaparral, grassland, coastal sage scrub, coniferous forest	20 locations *Eumeces skiltonianus*. May not all be Coronado skink	Low
Northern Red-diamond Rattlesnake (*Crotalus ruber ruber*)	None/CSC	coastal sage scrub, chaparral, grassland	18 locations	Documented
Orange-throated Whiptail (*Aspidoscelis hyperythra beldingi*)	None/CSC	coastal sage scrub, chaparral, woodland	174 locations	Moderate
Rosy Boa (*Charina trivirgata*)	None/SAL	chaparral, coastal sage scrub with cliff & rock	3 locations	Low
San Diego Banded Gecko (*Coleonyx variegatus abbotti*)	None/SAL	chaparral, coastal sage scrub with cliff & rock	1 location	Low
San Diego Horned Lizard (*Phrynosoma coronatum)* blainvillei population	None/CSC	coastal sage scrub, chaparral	50 locations	Moderate
San Diego Ringneck Snake (*Diadophis punctatus similis*)	None/SAL	woodland, grassland, agriculture, riparian	9 locations	Moderate
Silvery Legless Lizard (*Anniella pulchra pulchra*)	None/CSC	coastal sage scrub, chaparral, riparian, beach; sandy soils	No data points	Moderate
Southwestern Pond Turtle (*Actinemys marmorata pallida*)	None/CSC	ponds, water courses	12 locations	Moderate
Two-striped Garter Snake (*Thamnophis hammondii*)	None/CSC	riparian, vernal pool, marsh, open water, water courses	7 locations	Moderate
Mammals				
California Leaf-nosed Bat (*Macrotus californicus*)	None/CSC	habitat associations not well understood	No data points	Moderate potential to forage; no roost sites
California Mastiff Bat (*Eumops perotis californicus*)	None/CSC	cliff & rock; forages widely	No data points	Moderate potential to forage; no roost sites
Dulzura California Pocket Mouse (*Chaetodipus californicus femoralis*)	None/CSC	coastal sage scrub, chaparral	No data points	Moderate
Long-legged Myotis (*Myotis volans*)	None/SAL	woodland, riparian	No data points	Moderate potential to forage; no roost sites
Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*)	None/CSC	coastal sage scrub (sparse)	No data points	Moderate
Pacific Pocket Mouse (*Perognathus*	FE/CSC	coastal sage scrub	No data points	Very low –

Table 2
Special-Status Wildlife Species Addressed in Southern Subregion EIR/EIS

Common Name (Scientific Name)	Federal/State/	Vegetation Communities Providing Habitat	Number of Locations/ Populations in Southern Subregion Study Area	Potential to Occur in Project Impact Area
longimembris pacificus)		(sparse)		outside known range
Pallid Bat (*Antrozous pallidus*)	None/CSC	coastal sage scrub, chaparral, woodland	No data points	Moderate potential to forage; no roost sites
San Diego Black-tailed Jackrabbit (*Lepus californicus bennettii*)	None/CSC	coastal sage scrub, chaparral, grassland, agriculture	No data points	Low
Southern Grasshopper Mouse (*Onychomys torridus ramona*)	None/CSC	grassland, sparse coastal sage scrub	No data points	Very low
Spotted Bat (*Euderma maculatum*)	None/CSC	riparian (forages over water)	No data points	Moderate potential to forage; no roost sites
Townsend's Big-eared Bat (*Corynorhinus townsendii townsendii*)	None/CSC	grassland, agriculture, woodland, caves, crevices, buildings	No data points	Moderate potential to forage; no roost sites
Fish				
Arroyo Chub (*Gila orcutti*)	None/CSC	riparian, water courses	Arroyo Trabuco, San Juan Creek, lower Cañada Gobernadora	Documented in San Juan Creek
Southern Steelhead (*Oncorhynchus mykiss*)	FE/CSC	riparian, water courses	Not documented within planning area. Spawns in San Mateo Creek and its tributary Devil Canyon Creek and potentially present in lower Arroyo Trabuco Creek, a tributary to San Juan Creek.	Very low
Threespine Stickleback (*Gasterosteus aculeatus* spp.)	None/None	riparian, water courses	Arroyo Trabuco, upper San Juan Creek, upper Bell	Documented in San Juan Creek

Table 2
Special-Status Wildlife Species Addressed in Southern Subregion EIR/EIS

Common Name (Scientific Name)	Federal/State/	Vegetation Communities Providing Habitat	Number of Locations/ Populations in Southern Subregion Study Area	Potential to Occur in Project Impact Area
			Canyon	
Tidewater Goby (*Eucyclogobius newberryi*)	FE/CSC	riparian, water courses	Known from downstream of planning area at mouth of San Mateo Creek.	None
Invertebrates				
Harbison's Dun Skipper (*Euphyes vestris harbisoni*)	None/SAL	woodland w/larval host plant San Diego sedge (*Carex spissa)*	No data points	Very low
Quino Checkerspot Butterfly (*Euphydryas editha quino*)	FE/SAL	coastal sage scrub, grassland w/larval host plant dot-seed plantain (*Plantago erecta*)	No data points	None – extirpated from Orange County
Riverside Fairy Shrimp (*Streptocephalus woottoni*)	FE/SAL	vernal pools	Four general locations: Saddleback Meadows, Antonio Parkway-FTC North, Chiquita Ridge, Radio Tower Road	None – no vernal pools
San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)	FE/SAL	vernal pools	Two general locations: Chiquita Ridge, Radio Tower Road	None – no vernal pools

[1] Riparian/wetland acreage is based on the 2004 NCCP vegetation database. During wetland delineations in proposed development areas some mapping errors were detected and revisions to the riparian/wetland database in these areas will be reported in the next version of the NCCP/MSAA/HCP.

[2] Alkali meadow is included in the grassland category as habitat.

[3] Nest sites for raptors are listed as historic because they reflect a cumulative database collected from about 1990 to 2000. Only a small proportion of nest sites may be active at any given time.

Federal and State Designations

BCC U.S. Fish and Wildlife Service Bird of Conservation Concern
CSC California Special Concern Species
FC Federal Candidate Species
FE Federally Listed Endangered Species
FP State Fully Protected
FT Federally Listed Threatened Species
SAL Species on CDFG Special Animals List for tracking purposes (March 2009)
SE State Listed Endangered
SE State Listed Endangered
ST State Threatened
WL Watch List

Table 3
Special-Status Plant Species Addressed in Southern Subregion EIR/EIS

Common Name (Scientific Name)	Status Federal/State/ CNPS/Science Advisors Group	Vegetation Community Associations	Occurrence in Project Vicinity
Blochman's Dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*)	None/None/List 1B.1	coastal bluff scrub, coastal sage scrub, Valley and foothill needlegrass grassland	Not detected during focused rare plant surveys.
Catalina Mariposa Lily (*Calochortus catalinae*)	None/None/List 4.2	coastal sage scrub, chaparral, Valley and foothill needlegrass grasslands in heavy soils	Not detected during focused rare plant surveys.
Chaparral Beargrass (*Nolina cismontana*)	None/None/List 1B.2	chaparral and coastal sage scrub; mostly associated with Cieneba sandy loam and Cieneba-Rock outcrop complex	Not detected during focused rare plant surveys.
Cliff Spurge (*Euphorbia misera*)	None/None/List 2.2	sea bluffs, coastal sage scrub	Not detected during focused rare plant surveys.
Coastal Goldenbush (*Isocoma menziesii* var. *sedoides?*)	None/None/None	exposed areas on coastal bluffs, coastal bluff scrub	Not detected during focused rare plant surveys.
Coulter's Matilija Poppy (*Romneya coulteri*)	None/None/List 4.2	Coastal sage scrub and chaparral, dry washes, canyons, and mesic slopes	Not detected during focused rare plant surveys.
Coulter's Saltbush (*Atriplex coulteri*)	None/None/List 1B.2	coastal bluff scrub, coastal sage scrub, Valley and foothill needlegrass grasslands; associated with alkaline or clay soils	Not detected during focused rare plant surveys.
Curving Tarweed (*Holocarpha virgata* ssp. *elongata*)	None/None/List 4.2	coastal sage scrub, Valley and foothill needlegrass grasslands, chaparral, and cismontane woodland	Not detected during focused rare plant surveys.
Heart-leaved Pitcher Sage (*Lepechinia cardiophylla*)	None/None/List 1B.2	chaparral above 1,000 feet, cismontane woodland, coniferous forest	Not detected during focused rare plant surveys.
Intermediate Mariposa Lily (*Calochortus weedii* var. *intermedius*)	None/None/List 1B.2	chaparral, coastal sage scrub, coastal sage scrub-grassland ecotone, purple needlegrass grasslands	Not detected during focused rare plant surveys.
Many-stemmed Dudleya (*Dudleya multicaulis*)	None/None/List 1B.2	coastal sage scrub, chaparral, Valley needlegrass grasslands; mesic barrens and cobbly clay soils	Not detected during focused rare plant surveys.
Ocellated Humboldt Lily (*Lilium humboldtii* spp. *ocellatum*)	NoneNone-/List 4.2	oak woodland and stream courses in foothill-mountain transition zone	Not detected during focused rare plant surveys.
Pacific Saltbush (*Atriplex pacifica*)	None/None/List 1B.2	coastal bluff scrub, coastal sage scrub, alkali playas	Not detected during focused rare plant surveys.
Palmer's Grapplinghook (*Harpagonella palmeri*)	None/None/List 4.2	open patches of coastal sage scrub, coastal sage scrub-grassland ecotone, purple needlegrass grassland	Not detected during focused rare plant surveys.
Parish's Saltbush (*Atriplex parishii*)	NoneNone-/List 1B.1	alkali swales, sinks, depressions, and grasslands with heavy clay-alkali components	Not detected during focused rare plant surveys.
Parry's Tetracoccus (*Tetracoccus dioicus*)	None/None/List 1B.2	chaparral and coastal sage scrub on gabbroic soils	Not detected during focused rare plant surveys.

Table 3
Special-Status Plant Species Addressed in Southern Subregion EIR/EIS

Common Name (Scientific Name)	Status Federal/State/ CNPS/Science Advisors Group	Vegetation Community Associations	Occurrence in Project Vicinity
Prostrate Spineflower (*Chorizanthe procumbens*)	None/None/None/3	chaparral, coastal sage scrub, pinyon-juniper woodland, Valley needlegrass grassland; associated with weathered mesa soils and gabbroic clay	Not detected during focused rare plant surveys.
Rayless Ragwort (*Senecio aphanactis*)	None/None/List 2.2	coastal sage scrub, cismontane woodland, alkaline soils	Not detected during focused rare plant surveys.
San Miguel Savory (*Satureja chandleri*)	None/None/List 1B.2	chaparral, oak woodlands, oak forest, shaded stream courses	Not detected during focused rare plant surveys.
Southern Tarplant (*Centromadia parryi* spp. *australis*)	None/None/List 1B.1	alkali soils, sinks, depressions, and grasslands with heavy clay-alkali components	Not detected during focused rare plant surveys.
Sticky Dudleya (*Dudleya viscida*)	None/None/List 1B.2	coastal bluff scrub, coastal sage scrub, chaparral; on shaded steep rocky cliffs and canyon walls	Not detected during focused rare plant surveys.
Summer-holly (*Comarostaphylos diversifolia* spp. *diversifolia*)	None/None/List 1B.2	chaparral	Not detected during focused rare plant surveys.
Thread-leaved Brodiaea (*Brodiaea filifolia*)	FT/SE/List 1B.1	coastal sage scrub, chaparral, grassland, vernal pools; heavy clay soils	Not detected during focused rare plant surveys.
Western Dichondra (*Dichondra occidentalis*)	None/None/List 4.2	coastal sage scrub, chaparral, burned areas	Not detected during focused rare plant surveys.

CNPS (California Native Plant Society)

Lists
- 1A: Presumed Extinct in California
- 1B: Rare or Endangered in California and Elsewhere
- 2: Rare or Endangered in California, More Common Elsewhere
- 3: Need More Information
- 4: Plants of Limited Distribution

Threat Code Extension
- 1 Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- 2 Fairly endangered in California (20 – 80% occurrence threatened)